This series of guides together with accompanying videos and workshop resources form the ABC to VLE Toolkit (Version 2, 2020). Supported by the Erasmus+ programme of the European Union.

Resources available from [http://abc-id.org](http://abc-id.org)
4.1 THE IMPORTANCE OF LINKING DESIGNS TO TECHNOLOGY

As colleagues from Dublin City University note, “It is clear that academic staff require further support to integrate technology within their teaching and specifically in their VLE and technology-enhanced practice”. The hands-on team-based format of the classic ABC workshops is motivating and enjoyable and there is evidence of engagement and staff learning as a result. Early evaluation at UCL had shown where there was a lack of direct follow-up support, participants were often unable fully realise the plans they made during workshops. As pioneers of ABC method, the UCL team was ironically a victim of its own success. There were so many requests for ABCs the team was unable to follow up fully the post-workshop progress. The advice from UCL has always been for adopters to stage a more controlled roll-out, perhaps picking a few flagship programmes to support, helping them to implement designs and evaluating as they go along to pick up evidence of impact. This is a slower implementation but, in some institutions, building a solid evidence base may be more important than rapid expansion.

Direct support may be supplemented or replaced by online resources. Although universities generally have extensive guidance supporting the tools in the VLE (UCL’s Moodle Miniguides is an example), the link to learning design is not always clear. As its title suggests, the Erasmus + ‘ABC to VLE’ project was particularly interested in reinforcing that connection.

4.2 THE APP WHEEL – MAPPING THE AVAILABLE TECHNOLOGY

A VISIBLE WAY TO LINK PEDAGOGY AND TECHNOLOGY

Fig 4.1 First version of the UCL App Wheel.
Although not part of the main workshop, the App (or Tool) Wheel, where the tools available to teachers are mapped to the learning types, has proved a critical part of institutional implementation. There are many such ‘app wheels’ available, but the UCL team felt this specific mapping would help focus academics on the type of tools they could use. They also wanted to illustrate what was supported by the institution and what not by means of concentric rings, with the ‘low risk’ tools (in UCL’s case mostly in Moodle) in the centre and the high risk i.e. non-supported tools further out. We developed the wheel in a workshop format bringing together learning technologists with technical colleagues and other developers. The question of what tools were actually supported and to what level was very interesting in itself and we would highly recommend this consensus-building approach in other institutions. The outcome (above) is a useful visual map. In an active format this should be ‘zoom-able’ and ‘clickable’ leading to more information on the specific tool.

As part of the Erasmus project a new shared App Wheel was developed, representing the technologies available to teachers in the sector.

![Diagram of the ABC LD - Learning types and tools V2 2020 App Wheel](image)

*Fig 4.2 The 2020 ‘ABC to VLE’ App Wheel.*

**Producing a Local Version**

Clearly such a complex representation is of limited practical use, so institutional teams are encouraged to produce their own wheel based on the availability of local technologies, usually with the VLE at the centre but adding other supported tools as appropriate. The development of a local Tool Wheel can itself be an interesting exercise. The original UCL wheel was created during a workshop including digital education specialists and IT support colleagues. The project wheel above was also a collective
effort by project partners. At the local level, teachers and students could also be included in the discussion. When running these sessions, key questions usually arise, such as

- What does the university *actually* support?
- What is the level of support (e.g., all the features of a VLE, or just some of them)?
- What support resources are available?
- What should the institution support (what is missing)?
- How do tools get on the list (and how are they removed)?
- What is the balance between pedagogic needs and technical (or cost) limits?
- How do we deal with informal (e.g., non-institutional) tool use? Ban it? Tolerate it? Give guidance?
- How do we identify and share good practices?

These discussions may help clarify what is ‘on offer’ to academics and so raise awareness of what is digitally possible. Once developed, the wheels can be used post-workshop to guide participants to technical decisions or they can be used independently from the workshop, as a staff development tool. During their implementation to the Canvas VLE, one project partner the **University of Amsterdam** developed a Canvas-centred version.

![Canvas App wheel from the University of Amsterdam](image)

*Fig 4.3 Canvas App wheel from the University of Amsterdam.*
4.3 ABC TO VLE – THE APP WHEEL IN ACTION

The Erasmus+ project explored several different implementations of the App Wheel concept. Four approaches were taken. Dublin City University produced an interactive online version using the web-based development environment HP5, Absalon developed a selection tool in WordPress, and UCL developed a worksheet. The deepest integration was from Vives, who had already been using for ABC several years when the project started.

Dublin City University – H5P Interactive Tool

DCU academic staff required further support to integrate technology within their teaching and specifically in their VLE (Moodle) and technology-enhanced practice. The DCU ‘ABC to VLE App Wheel’ was developed as an interactive resource providing video- and text-based guidance on how to use specific tools within the Moodle VLE and beyond. Tools are presented for all six learning types at various levels: VLE (at the core of each slide) indicates tools that are available within the VLE. The VLE+ ring represents tools that are not part of the VLE but are supported by ISS and used widely. The outer Recognised ring represents tools that are not directly supported by the university but are recognised as being used by some staff. Clicking on any information icon prompts the display of text and/or video about how to implement that tool in practice. See example below.

Fig 4.5 Screenshot from DCU App Wheel indicating tools available for ‘Acquisition’ in the VLE.
Fig 4.6 Clicking the Information (i) Icon reveals explanatory text and/or video about the selected tool.

This wheel was developed as an open educational resource in Moodle Book, H5P, and Microsoft PowerPoint formats, all of which are downloadable and available for customisation. H5P is an open-source plugin for platforms like Moodle and WordPress that enables the creation of interactive content. In developing the DCU version of the App Wheel specifically, the TEU team aimed to:

- Highlight effective in-house and GDPR compliant tools in particular, as many staff are not aware of how much they can do with their own VLE
- Ensure that pedagogy (in the form of the 6 learning types) is kept to the forefront of academics’ minds in the development of learning activities - this is in keeping with our ‘Pedagogy First’ philosophy which is reiterated further in the Introducing the App Wheel video within the support package
- Remind academic staff of what they discussed in an ABC workshop by continuing the thinking of the workshop and providing immediate practical ‘How To’ guidance when they are back at base
- Provide easy-to-navigate video and short text as support guidance (as opposed to lengthy or complex implementation guides which may be less likely to be read). In addition, a visually-appealing App Wheel poster has been developed to introduce and explain how the App Wheel works.
- Develop open tools that could be customisable by others outside of DCU: This package of resources and tools has been created to allow anyone to create a version of the App Wheel that is relevant to the technologies used at your institution. Instead of creating a brand new wheel from scratch, interested parties can adapt and reuse the wheel developed by DCU, if they wish.

Three formats of the App Wheel are available to cater for technologies available/in use at different institutions:

- H5P Format
- Google Slides/PowerPoint Format
- Moodle Book Format (In Progress)
Full details of how to edit the different formats are provided in an extensive DCU to VLE+ App Wheel Support Package which includes introductory video, overview of how to use the package (and customise formats).

ABSALON – WORDPRESS TOOL SELECTOR
Absalon took a different approach, using the concepts of the wheel to produce an interactive ‘tool’ selector site in WordPress. Their (Danish language) implementation is accessible here: https://tel.pha.dk/tekno/ The app wheel is based on a simple Word Press site in which we have added available digital and analogue tools as notes with keys/tags as filtering. This page helps users choose digital tools through a filter function that applies the 6 learning types presented in the ABC workshop.

ABSALON – WORDPRESS TOOL SELECTOR

Fig 4.7 The Absalon implementation.

UCL – WORD WORKSHEET
The development of the Tool/App Wheel at UCL has been described above. In the Base version of the workshops, the UCL team often used a supplementary sheet as a prompt to extend teaching and learning suggestions beyond the card set (which must be kept quite small) and to help teams working with distance learning.

UCL – WORD WORKSHEET

Fig 4.8 The UCL supplementary sheet.
The supplementary sheet proved popular with academic teams, even those not developing full distance learning courses. As UCL began to develop materials for online versions of ABC, this sheet has been combined with the cards to produce a large worksheet. A new UCL version of the App wheel was produced as below, aligned with the UCL Miniguides, mentioned above.

**Fig 4.9 UCL App Wheel and a menu from the Miniguides.**

To reinforce the connection with the VLE, the new workshop lists the learning types, conventional and digital activities, the Moodle (and other UCL) tools (with links to the Miniguides) and ideas from the original supplementary sheet to ‘take it further’.

**Fig 4.10 UCL 2020 worksheet.**
The worksheet can be used as an information sheet as part of academic development, or blank versions can be used as a reflective tool to help teachers consider what approaches are being used now and digital alternatives.

**VIVES**

![Fig 4.11 The Vives App Wheel is very visible on campus (shown with Dr Clive Young, UCL).](image-url)

At VIVES, the App (Tool) Wheel was one of the first things we developed and changes based upon the already existing support materials of the educational technology unit of the institution. The range of available educational tools are presented in the wheel classified in the six learning activities that are used in the ABC-method. Teachers see immediately which tools are eligible for their chosen learning activities. VIVES also added the level of support to this in order for teachers to immediately see which level of support they can receive for the chosen tool. There are three levels of support available:

- Strongly supported tools: manuals, research and licenses are available for these tools i.e. tools in the inner circle
- Supported to a limited extent: either a manual, professionalization, or licenses are available for these tools. The tool is supported by offering one(or two) of the three forms of support i.e. tools in the middle circle
- Inspiring tools: these tools are provided as an opportunity, for inspiration. No manuals, updates or licenses are provided i.e. tools in the outer circle

The wheel is a dynamic thing because the tools in the wheel are subject to change. For example, a tool can shift because of extra functionalities from learning activity, but the tool can also be placed more inwards or outwards depending on the level of support. For this reason, the wheel is digital, so it can be changed very quickly, preventing too much outdated versions of the app-wheel are circulating among the teachers. In the card of the learning activities, used in the ABC workshop, QR-codes are added in order to lead the teachers to the online pages and the digital app-wheel.

For each tool, a tool page is available on the VIVES intranet where all teachers can find all explanations, support, ... concerning the tool. Until now, the app-wheel is static. The next academic year, we want...
to make it dynamic in order to make it an interactive app-wheel (which is ‘clickable’) in order to make it even more user-friendly for our teachers.

The wheel stands on its own to support teachers, and although the App (or Tool) Wheel is not part of the original UCL workshop, at VIVES, the app-wheel is used during each ABC workshop; regardless of which variant of the workshop is given. We do this intentionally, in order to stimulate the link between educational development and the use of educational technology. We want to emphasize the importance of not just using technology for the technology, but to use it in a learning-goal oriented, well-thought way.

Fig 4.11 How the Vives intranet is built upon the App Wheel.

This is also in line with Vives’ integrated approach linking the technology environment and the design process with each other (see previously).

4.4 OTHER POST-WORKSHOP SUPPORT TOOLS

RECIPE CARDS (UNIVERSITY OF LINCOLN)

Shortly before the Erasmus project started, the UCL team were able to make a belated visit to the University of Lincoln Digital Education team to run a ‘train the trainers’ session. The Lincoln team had already incorporated ABC concepts in their academic support materials and had produced a set of ‘recipe cards’ that linked the six learning types to examples of good pedagogical practice technological ‘how to’s’. These are available under Creative Commons.

4.12 University of Lincoln ABC-based recipe cards
DIGITAL REPRESENTATIONS
One of the obvious criticisms of ABC is the outputs are analogue in nature (sheets of paper, essentially). Over the years there has been considerable interest in developing digital support tools.

EXCEL SHEETS
Sorbonne prepared an Excel document that the teaching team can edit in a collaborative way. The teams align the learning outcomes (note the level on Bloom’s taxonomy) with the learning activities planned and indicate the type of assessment they choose. It is also possible to add notes beside each activity or group of activities and estimate the time needed for students to perform them.

4.13 Example of a fully online module as designed by the Sorbonne team

4.14 Downloadable example by the Sorbonne team

Downloadable example

https://docs.google.com/spreadsheets/d/1q6Mjx5FfACMAh2NvAkoiGNeSDwxEWis5fPjUZ5nAbTE/edit#gid=209226546

DIGITAL WHITEBOARDS AND ORGANISERS
See Part 6 of the Toolkit for other digital representations of the designs.

4.5 CASE STUDY ASSOCIATED WITH THIS GUIDE
Sorbonne - Designing blended learning using a variant of ABC
ABC Learning Design method by Clive Young and Nataša Perović, UCL (2015) is licensed under CC BY-NC-SA 4.0.
Download at http://abc-ld.org